## AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

## 1. (Previously Presented) A compound of the general formula (I):

$$A \xrightarrow{G} \xrightarrow{E} OH$$

$$X \xrightarrow{R^3} \xrightarrow{R^4} OH$$

$$X \xrightarrow{S} (O)_n O$$

$$(I)$$

wherein

A is a heteroalkyl-, heterocycloalkyl-, heteroalkyl-cycloalkyl-, heteroaryl- or heteroarylalkyl group,

G-E is selected from the following groups,

or is part of an optionally substituted cyclopropyl ring,

n is 0, 1 or 2,

 $R^1$  is a  $C_1$ - $C_4$  alkyl- or a  $C_3$ - $C_4$ -cycloalkyl group,

X is oxygen or a group of the formula NR<sup>2</sup>, wherein R<sup>2</sup> is hydrogen, OH, NH<sub>2</sub>, NH(Alkyl), N(alkyl)<sub>2</sub>, a alkyl-, alkenyl-, alkynyl-, hetero-alkyl-, aryl-, heteroaryl-, cycloalkyl-, alkylcyclo-alkyl-, heteroalkylcycloalkyl-, heterocycloalkyl-, aralkyl- or a heteroaralkyl group,

R<sup>3</sup> and R<sup>4</sup> are independently of each other hydrogen, a C<sub>1</sub>-C<sub>4</sub> alkyl group or together are part of a cycloalkyl group with 3 or 4 ring atoms,

or a pharmacologically acceptable salt, solvate, hydrate or a pharmacologically acceptable formulation thereof.

- 2. (Previously Presented) A compound according to claim 1, wherein A is a group of the formula  $-C(CH_3)=CHR^5$ ,  $-C(C_2H_5)=CHR^5$ ,  $-C(Cl)=CHR^5$  or  $-CH=CHR^5$ , wherein  $R^5$  is a heteroaryl- or a heteroarylalkyl group.
- 3. (Previously Presented) A compound according to claim 1, wherein A is a group of the general formula (II), (III), (IV), or (V):

$$R^{6} \xrightarrow{Q} Z \qquad \qquad R^{6} \xrightarrow{Q} (III)$$

$$R^{6} \xrightarrow{N} N \qquad \qquad (IIII)$$

$$R^{6} \xrightarrow{N} N \qquad \qquad V$$

wherein

Q is sulphur, oxygen or a group of the formula  $NR^7$ , wherein  $R^7$  is hydrogen, a  $C_1$ - $C_4$  alkyl group or a  $C_1$ - $C_4$ -heteroalkyl group, z is nitrogen or a CH group and  $R^6$  is a group of the formula  $OR^8$  or  $NHR^8$ , a alkyl-, alkenyl, alkinyl- or a heteroalkyl group, wherein  $R^8$  is hydrogen, a  $C_1$ - $C_4$ -alkyl group or a  $C_1$ - $C_4$ -heteroalkyl group.

- 4. (Previously Presented) A compound according to claim 3, wherein z is a CH-group.
- 5. (Previously Presented) A compound according to claim 3, wherein Q is sulphur or oxygen.
- 6. (Previously Presented) A compound according to claim 3, wherein R<sup>6</sup> is a group of the formula CH<sub>3</sub>, CH<sub>2</sub>OH or CH<sub>2</sub>NH<sub>2</sub>.
- 7. (Previously Presented) A compound according to claim 1, wherein X is oxygen.

- 8. (Previously Presented) A compound according to claim 1, wherein R<sup>1</sup> is a methyl group.
- 9. (Previously Presented) A compound according to claim 1, wherein R<sup>3</sup> and R<sup>4</sup> are methyl groups.
- 10. (Currently Amended) A method of synthesizing the compound of claim 1 comprising the use of (a) coupling (i) (1,1-Dialkyl-2-oxo-butylsulfanyl)-acetic acid or its derivatives as an intermediate, wherein the derivatives are a derivative thereof selected from the group consisting of sulfoxides, sulfones, esters, amides, 3-haloderivates, (3-bromo-1,1-dimethyl-2-oxo-butylsulfanyl)-acetic acid esters of methanol and ethanol, and sulfoxides of methanol and ethanol to (ii) a compound selected from the group consisting of (1E,5Z,3S,10S)-11-(tert-butyl-dimethylsilyloxy)-2,6,10-trimethyl-1-(2-methyl-thiazol-4-yl)-undeca-1,5-dien-3-ol, (1E,5Z,3S,10S)-11-(tert-butyl-dimethyl-silyloxy)-2,6,10-trimethyl-1-(2-methyl-pyridine-2-yl)-undeca-1,5,9-trien-3-ol via an esterification reaction, and (b) subjecting the product of step (a) to an aldol condensation reaction, to synthesize the compound of claim 1,.
- 11. (Previously Presented) A pharmaceutical composition containing a compound according to claim 1 and optionally a carrier and/or adjuvants.
- 12. (Previously Presented) A method of treating cancer in a human comprising administering the compound of claim 1 to the human.
- 13. (Previously Presented) A method of treating cancer in a human comprising administering the pharmaceutical composition of claim 11 to the human.